

SPECIFICATION (description and claims)

Title -- Newspaper Box Monitor -- It lets you know when a newspaper is delivered into your newspaper box. It is the same as Provisional Patent Application number 60/179,444, Filing Date -- 02/01/2000, Name of Applicant -- Deane Dorwin McMillen, Willshire, OH. All newspaper companys will furnish a newspaper box at your residence along the road or street, and somebody to deliver a newspaper into your newspaper box (for a price per week) every day that they print the newspaper. The time for delivery will be different because of the weather or printing difficulties. Without something to determine when the newspaper has been delivered you could go outside and look into an empty newspaper box several times (that is no fun in rainy and cold weather). There are schematic diagrams and parts list for each drawing and explanations how the work. A lever, switch and either a visual monitor or a transmitter monitor are installed into an existing company newspaper box. When ever a newspaper is delivered in the newspaper box it will activate the lever switch and turn on the visual monitor or transmitter monitor (which ever one that has been installed in the newspaper box). With a visual monitor installed in the newspaper box, by looking out a window, you would see a light blinking on and off. With a transmitter monitor installed in the newspaper box and a receiver in the house, you would hear a intermittent tone in the house. With a newspaper box monitor you would not waste a lot of time by having to look out a window and watch for the delivery person to drive up and put the newspaper into the newspaper box.

NEWS PAPER BOX MONITOR

Inventor,

Sally E. Miller

SCHEMATIC DIAGRAM

VISUAL

PARTS LIST

	R1-1MEGOHM $\frac{1}{4}W$ 5% R2-33000 $\frac{1}{4}W$ 5% R3- 1000 $\frac{1}{4}W$ 5% R4- 120 $\frac{1}{4}W$ %5 C1-4.7UF ELECTROLYTIC C2-.05 DISC IC1-LM555 TIMER Q1-2N3906 PNP	S1-LEVER SWITCH LAMP-6V 25MA 9 VOLT- B1 CIRCUIT BOARD WIRE PHENOLIC BOARD ENCLOSURE HARDWARE
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THE IC1 timer/osc, (LM555) is used to time the on-off time of the lamp. timing is done by the values of R1, R2 and C1. The output of IC1,pin 3, is applied to the base of Q1 (2N3906-PNP transistor), which makes the lamp blink on and off. The lamp and wire connection is placed through the hole in the bottom of the news paper box, far enough so that the lamp can be seen at the house. When the paper is delivered the weight of the paper on the phenolic board lever will activate the switch (S1) and put a negative voltage to pin 1 of the IC1 timer, turning it on, and the lamp can be seen blinking on and off at the house.

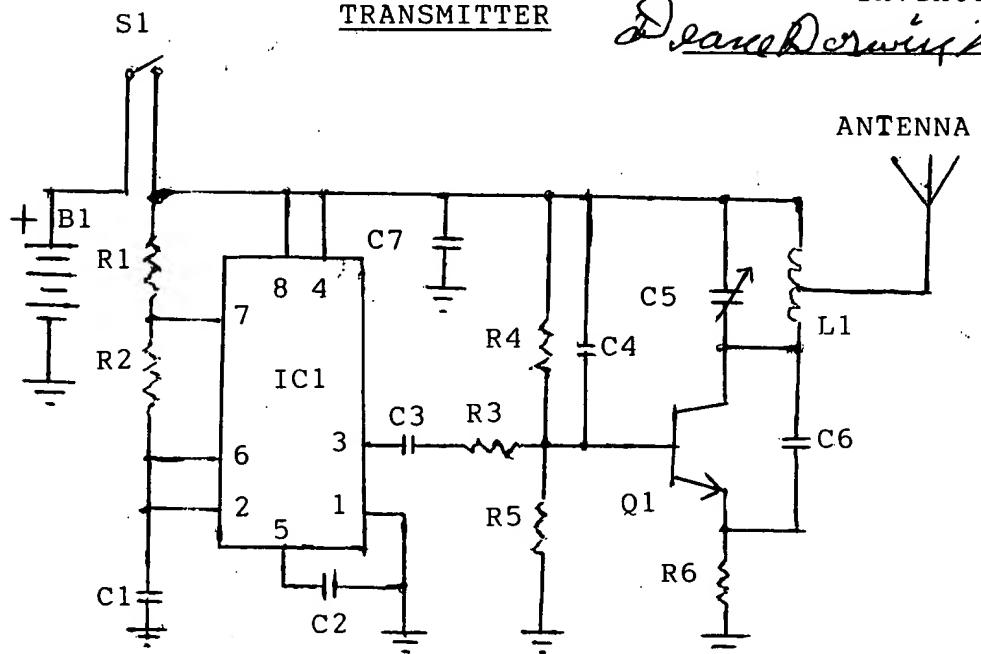


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My Commission Expires August 6, 2002

Date 124-00*Sally E. Miller*

NEWS PAPER BOX MONITORSCHEMATIC DIAGRAMTRANSMITTER

Inventor

Sally E. Miller

PARTS LIST

L1-4 TURNS #22 AWG ENAMELED WIRE	S1-LEVER SWITCH (@ RADIO SHACK #275-016)	C3-.01 uf DISC C4-.005 UF DISC
$\frac{1}{4}$ " PLASTIC FORM-ANTENNA CENTER TAPPED	R1-47000 OHM $\frac{1}{4}$ W 5%	C6-5 PF DISC C7-.1 UF DISC
C5-VARIABLE 3PF TO 40PF (@ RADIO SHACK # RSU1191081)	R2-10000 OHM $\frac{1}{4}$ W 5% R3= 240 OHM $\frac{1}{4}$ W 5% R4-10000 OHM $\frac{1}{4}$ W 5% R5- 5600 OHM $\frac{1}{4}$ W 5%	B1-9 VDC CIRCUIT BOARD PHENOLIC BOARD WIRE & HARDWARE
IC1-LM555 TIMER	R6- 120 OHM $\frac{1}{4}$ W 5%	ANTENNA-20" WIRE ENCLOSURE(@ RADIO SHACK #RSU11340288)
Q1-2N3904 NPN	C1-.05 DISC UF C2-.01 DISC UF	



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NEWS PAPER BOX MONITOR

TRANSMITTER

Inventor

Dave Derrington Miller

The IC1 timer (LM555) is used as an audio signal generator. The audio frequency is determined by the value of R1, R2 and C1. The audio output at pin 3 is applied to the base of Q1 (2n3904) through C3 and R3 and modulates the frequency of the Q1 oscillator. The frequency of Q1 is determined by the value of coil L1 and the variable capacitor C5. By adjusting C5 the frequency can be changed. The antenna wire is center tapped to coil L1. The weight of the news paper on the phenolic board lever, when the paper is delivered, will activate the S1 lever switch and turn on the 9 volt transmitter.

An FM receiver in the house, when tuned to the transmitter frequency, will make an audio tone in the speaker. The transmitter frequency can be changed by adjusting the variable capacitor C5 and should be set on an unused point on the receiver dial in your area.

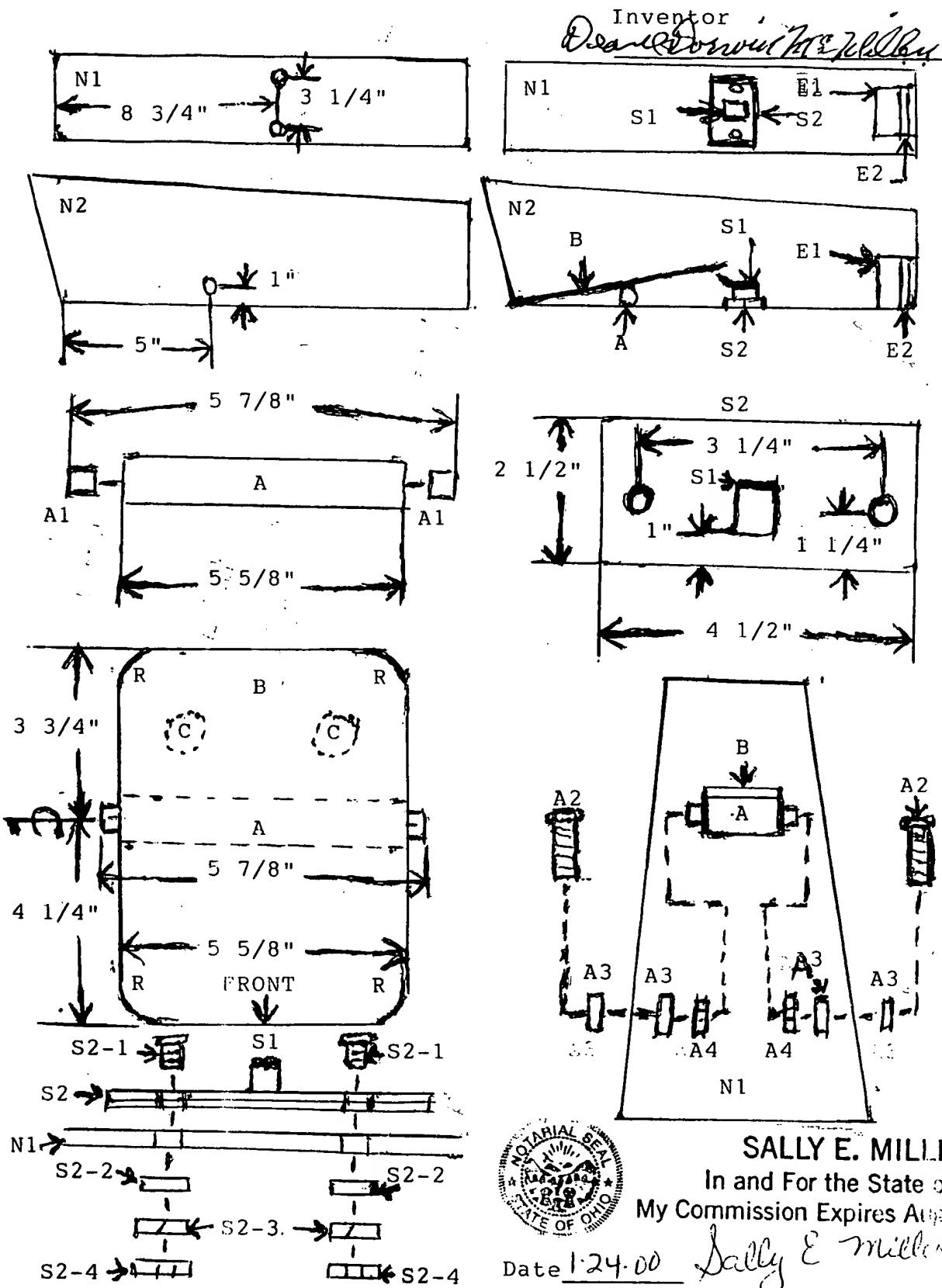
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NEWS PAPER BOX MONITOR S1 SWITCH LEVER



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NEWS PAPER BOX MONITOR S1 LEVER PARTS LIST

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>NO. REQUIRED</u>
A	3/8" OD polybutylene, 5 5/8" long faucet hookup tube.	1
A1	1" long bearings (#6 spacers) inserted into each end of A with 1/8" sticking out, and epoxyed, total length 5 7/8" long.	2
A2	Machine screws #6-32 x 2 1/2" long.	2
A3	Washers #6.	2
A4	Nuts #6.	2
B	Phenolic board with center line of A epoxyed where the line meets 3 3/4" and 4 1/4" of Phenolic board. That makes the switch lever.	1
C	2 weights epoxyed to the bottom rear (3 3/4") part of B, to counter balance the switch lever.	2
S2	Phenolic boards with S1 switch epoxyed to them.	2
S2-1	Machine screws #6-32 x 1/2" long.	2
S2-2	Washers #6.	2
S2-3	Lock washers #6.	- 2
S2-4	Nuts #6.	2
E1	Enclosure with visual or FM radio frequency transmitter parts. Every house has an extra FM radio, to be used as a receiver, inside the house.	1
E2	Self stick dual reclosable fastners.	1
S1	Lever switch (@ radio shack #275-016).	1
N1	News paper box bottom. Drill 2 holes with 9/64" drill.	
N2	News paper box sides. Drill both sides with 9/64" drill.	
R	3/8" radius at 4 corners of B switch lever.	
	Can be used with multiple news paper boxes by adding a lever B and a S1 switch to each extra box and wiring the S1 switch to the wire in the active news paper box. It will let you know that you have a news paper delivered, but not in which box.	



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